NUCLEI IN THE COSMOS V

An International Symposium on Nuclear Astrophysics

July 6 - 11, 1998, Volos, Greece

Third Announcement

Dear Colleague

The opening day of NUCLEI IN THE COSMOS V is close now. More than 150 participants have already registered and we are looking forward to a very successful conference.

Please, read carefully the following instructions concerning: (1) transportation; (2) registration; (3) the scientific programme; (4) proceedings; and (5) social events and accompanying persons; make the appropriate arrangements as soon as possible, especially concerning point (1).

1. TRANSPORTATION

Volos is located about 300 km to the north of Athens or 200 km to the south of Thessaloniki, the two cities with the nearest airports. The Organising Committee will provide transportation by buses from the airports of Athens and Thessaloniki to Volos on **Sunday, July 5**. Notice that this is the first week-end of July and most Europeans start their holidays at that period. It is therefore highly recommended that you make travel arrangements and reservations as soon as possible, and inform the Local Organizing Committee about your arrival (time, airport, flight), by `e-mail` to:
`cosmos98@cyclades.nrcps.ariadne-t.gr`

From the information we have up to now on your arrivals, the following tentative schedule has been established (based on data concerning ∼40 % of the arrivals; any modifications - on the basis of further information - will be notified in time).

• Bus from Thessaloniki airport to Volos:
- One bus leaving at 18:30

• Bus from Athens airport (East Terminal) to Volos:
- One bus leaving at 14:00
- One bus leaving at 16:30
- One bus leaving at 19:00

Notice that the airport of Athens has two terminals: West (exclusively for `OLYMPIC AIRWAYS`) and East (all other companies). Since all announced arrivals are in the East airport, buses will leave from there; if somebody arrives with `OLYMPIC AIRWAYS`, please let us know.

Those arriving after 6 p.m. on Sunday July 5, may either
• Rent a car in the airport and come to Volos
• Take a taxi and get to the Bus Station to Volos, located downtown Athens or Thessaloniki (about 8 US $ in the case of Athens and 5 US $ in the case of Thessaloniki); the Bus Station is at `TRIS GEFIRES` in Athens and at `PLATEIA VARDARI` in Thessaloniki. Buses to Volos run approximately every 2 hours from Athens and every 3 hours from Thessaloniki and the trip lasts 4h30min and 3h, respectively; bus tickets to Volos cost about 20 US $ from Athens and 12 US $ from Thessaloniki. Once in Volos, you may get a taxi from the Bus Station to the hotels (about 4 US $)
• Take a taxi from the airports to Volos (interesting only in the case of 3-person groups; a global price for the trip should then be arranged with the taxi driver, that should not exceed 130 US $ from Athens or 80 US $ from Thessaloniki...).

Those arriving before Sunday 5 may either
• go directly to Volos in one of the ways above, or
• stay in a hotel in Athens and go to the East terminal to get one of the buses on Sunday (some tel. numbers of hotels down-town Athens: *Myrto:* 30 1 322 7237; *Plaka:* 30 1 322 2096; *Omiros:* 30 1 323 5486; *Achilleas:* 30 1 323 3197. Notice that no special agreement of those hotels with the LOC of NiC98 has been made!).

Obviously, the most convenient thing to do is to arrive at the airports on Sunday 5, before 6 p.m. and get the bus provided by the LOC. A similar situation holds for the trip from Volos to the airports: buses will leave early in the morning of Sunday 12. Again, make reservations as soon as possible and inform the LOC about your schedule and/or any problem you may have.

2. REGISTRATION

The `Registration Fee` is 150 US $ and includes:
• Lunches and Coffee Breaks
• A volume of the Proceedings
• Social events (Welcome Cocktail and the Symposium Dinner)
• An excursion to Meteora (see below).
• Bus transportation from the airports to Volos on Sunday 5 (and from Volos to the airports on Sunday 12), as indicated on item 1 above.

The fee will be paid `in cash`, either in US $ or in greek drachmas (current equivalence: 1 $ = 300 drs). The LOC cannot accept credit cards, traveller's checks or checks, and we apologise for that inconvenience. Major credit cards (`VISA, Master Card, American Express etc.`) can be used in Volos for shopping, hotel bills and to withdraw cash (drs !) from automatic machines.

An early registration will take place in the evening of Sunday 5, from 20:00 to 21:30 in the hall of PARK hotel. Registration will also take place in the building of the University of Thessaly (in front of the Conference Room) in the morning of Monday 6, from 8:30 to 9:00. The registration desk will be open daily, from 8:30 to 13:00.

3. SCIENTIFIC PROGRAMME AND FACILITIES

The Symposium will take place in the Conference Room of the University of Thesssaly, at walking distance from the hotels (1 min from PARK and 10 min from XENIA).

The `Programme` of the Symposium has been established by the Scientific Organising Committee on the basis of the submitted abstracts and in the spirit of covering in a balanced way all sub-fields of Nuclear Astrophysics (see attached programme). A Round Table followed by a general discussion will take place in the Closing Session, summarising the conclusions of the Symposium.

A large number of `Poster papers` has been accepted (see attached list). Posters will be displayed during the entire conference. Poster size is `50 cm` large x `120 cm` long. Two special poster sessions are scheduled for the evenings of Tuesday 7 and Wednesday 8.

Contributors should be aware that they address a mixed audience, consisting of scientists with different backgrounds (i.e. nuclear physics, astrophysics, meteoritics etc.) In the spirit of the previous, highly successful, NiC meetings, special emphasis should be given on the implications of the presented results for the interdisciplinary field of Nuclear Astrophysics. Invited speakers, in particular, should take a few minutes to put their topic in a broader context. Notice that, due to the large number of speakers, a limited amount of time will be available (25 min + 5 min discussion for invited speakers; 12 min + 3 min discussion for contributed talks), requiring well prepared presentations...

For oral presentations, slide and overhead projectors will be available. If you need any other audio-visual equipment, please notify us as soon as possible.

The University of Thessaly will provide access to a `fax` and a `photocopy` machine. Also, access to a number of computer terminals connected to `Internet` will be provided during the Conference.

4. PROCEEDINGS

The Proceedings of the Symposium will be published by `Editions Frontieres` (France). All contributions to the Symposium (invited, contributed oral and posters) will be published. Page limit is **7 pages** for invited papers and **4 pages** for oral and poster contributions. In order to achieve a rapid publication authors are requested to submit their manuscripts soon after the Symposium and in any case no later than September 15th, 1998 (final deadline).

In the interest of uniformity in the layout of the proceedings authors are kindly requested to use a LaTeX macro (`nicV.sty`) along with a sample file (`sample.tex`), containing the Instructions to the Authors. These files (along with a postscript figure file (`fig.ps`), used for illustration purposes) are available by `anonymous ftp` on the machine `ftp.iap.fr`, in the directory `/pub/from_users/prantzos/nicV`. In order

to get the macros, you should connect to `ftp.iap.fr` as follows :
`ftp ftp.iap.fr`
Name: `anonymous`
Password: `your full e-mail address` (e.g. `prantzos@iap.fr`)
ftp> `cd pub/from_users/prantzos/nicV`
ftp> `get sample.tex`
ftp> `get nicV.sty`
ftp> `get fig.ps`
ftp> `bye`

The macro and the sample file must be used for your text, which should be submitted electronically to the same ftp address, as indicated in the `sample.tex` file. If, for some reason, you cannot get the macros in the indicated way, please contact `prantzos@iap.fr`.

5. SOCIAL EVENTS AND ACCOMPANYING PERSONS

Social events during the Conference include:
- A Welcome cocktail on the evening of Monday 6
- An excursion to Meteora on the morning of Thursday 9 (8:00-15:00)
- A 3-hour cruise in the Golf of Pagasitikos, on the evening of Thursday 9
- The Conference Dinner, on the evening of Wednesday 10

The Registration Fee covers participation to all these events. Accompanying persons may also participate, at the following prices: Excursion to Meteora: 15 US $; Cruise: 10 US $; Conference Dinner: 15 US $; participation to the Welcome Cocktail is free for accompanying persons. Tickets for participation to those events will be available at the Registration Desk during the Symposium.

Volos (starting point of Jason and the Argonautes in the Greek mythology) has several nearby tourist attractions, including the beautiful Mount Pelion (home to the Centaurs) and the Sporades islands, one of the most important summer vacation resorts in Greece. Those wishing to spend some more time in the region either before or after the meeting should contact their travel agent. During the Conference, excursions to nearby tourist attractions (e.g. Volos museum or the paleolithic settlements of Dimini and Sesklo) may be organised for accompanying persons. For information, they should contact the Desk of PARK Hotel after their arrival.

Weather in Greece during the summer months is usually hot (average temperature: 25-30 Celsius), with extremely rare showers. The Conference Room and the hotels are air-conditioned.

CONTACT ADDRESS

For Registration, Abstract Submission, Information about your Arrival:

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For anything else:

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SCIENTIFIC ORGANISING COMMITTEE OF NICV

M. ARNOULD (Belgium), C. CHIOSI (Italy), M. DOPITA (Australia), W. HILLEBRANDT (Germany), K. NOMOTO (Japan), B. PAGEL (Denmark), N. PRANTZOS (France), T. PARADELLIS (Greece), C. ROLFS (Germany), D. SCHRAMM (USA), F. THIELEMANN (Switzerland), V. TRIMBLE (USA), S. WOOSLEY (USA), M. WIESCHER (USA)

LOCAL ORGANISING COMMITTEE OF NICV

S. HARISSOPOULOS, T. PARADELLIS (NCSR "Democritos", Athens);
D. DIALETTIS, E. KONTIZAS (Athens Observatory);
G. AGRAFIOTIS (University of Thessaly); N. PRANTZOS (IA Paris)-Chairman

PROGRAMME

Invited talks: 25min + 5min discussion; contributed talks: 12min + 3min discussion

MONDAY 6

08:30-09:00		REGISTRATION
Session 1	*09:00-10:00*	*OPENING SESSION*
09:00-09:15		Welcome addresses
09:15-10:00	H. Reeves	Sixty years of Nuclear Astrophysics
10:00-10:45	COFFEE BREAK	
Session 2	*10:45-13:00*	*BIG BANG AND THE LIGHT ELEMENTS*
10:45-11:15	J. Audouze	Early nucleosynthesis of the lightest elements
11:15-11:30	T. Kajino	Degenarate neutrinos and Big Bang nucleosynthesis
11:30-11:45	I. Vergados	Search for supersymmetric dark matter
11:45-12:00	C. Deliyannis	Lithium and beryllium in stars
12:00-12:30	R. Michel	Spallation reactions in astrophysics
12:30-13:00	R. Ramaty	Evolution of Be and B and the origin of Cosmic Rays
13:00-14:30	LUNCH	
Session 3	*14:30-16:30*	*H- AND He- BURNING IN STARS*
14:30-15:00	T. Wilson	Interstellar isotopic ratios
15:00-15:30	A. Champagne	Na and Al in globular cluster stars: reaction studies
15:30-15:45	C. Chronidou	Cross-section measurements of ^{27}Al(p,γ)
15:45-16:00	A. D'Alessandro	The ^{3}He(2p,α)^{3}He reaction at Gran Sasso
16:00-16:30	M. El Eid	Evolution and Nucleosynthesis in Red Giant Stars
20:00-21:30		WELCOME COCKTAIL

TUESDAY 7

Session 1	*8:30-10:15*	*NUCLEOSYNTHESIS IN MASSIVE STARS*
08:30-09:00	D. Arnett	Nucleosynthesis and mixing in massive stars
09:00-09:15	W. Hammer	Investigation of reactions of CNO cycle and He-burning
09:15-09:30	P. Tischauser	Results from ^{12}C(α,α)^{12}C; implications for ^{12}C(α,γ)
09:30-10:00	N. Langer	Stellar rotation and nucleosynthesis
10:00-10:15	A. Chieffi	Evolution and yields of massive stars
10:15-11:00	COFFEE BREAK	
Session 2	*11:00-13:00*	*SUPERNOVAE*
11:00-11:30	T. Janka	Core collapse supernovae
11:30-11:45	G. Martinez-Pinedo	Large-scale shell model calculations for Nuclear Astrophysics
11:45-12:15	K. Nomoto	Supernova nucleosynthesis: an overview
12:15-12:45	J. Isern	The gamma-ray signature of SNIa
12:45-13:00	P. Ruiz-Lapuente	Positrons in supernovae
13:00-14:30	LUNCH	
Session 3	*14:30-16:30*	*COSMIC RADIOACTIVITY; THE R-PROCESS (I)*
14:30-15:00	R. Diehl	Gamma-ray line astronomy
15:00-15:15	D. Hartmann	Cosmic chemical evolution and gamma-ray line astrophysics
15:15-15:45	B. Meyer	Nuclear dynamics of the r-process
15:45-16:15	D. Lunney	Nuclear masses: models, experiments, astrophysical impact
16:15-16:30	A. Ignatyuk	Level densities of neutron-rich nuclei
20:00-21:30		*1st POSTER SESSION*
22:00-23:30		1st SEMI-FINAL OF WORLD-CUP (Nothing to do with NiC98!)

WEDNESDAY 8

Session 1	*8:30-10:15*	*THE R-PROCESS (II)*
08:30-09:00	I. Borzov	Theoretical β-decay rates and astrophysical implications
09:00-09:15	S. Goriely	n-capture rates; implications for the s- and r-process
09:15-09:30	O. Sorlin	Study of n-rich Sc, Ti, V and Cr isotopes at GANIL
09:30-09:45	W. Walters	Study of very n-rich nuclides and the r-process
09:45-10:00	S. Rosswog	Mass ejection in neutron star mergers and the r-process
10:00-10:15	G. Mathews	Models for gamma-ray bursts from binary neutron stars
10:15-11:00	COFFEE BREAK	
Session 2	*11:00-13:00*	*P-PROCESS; EXPLOSIVE H- BURNING*
11:00-11:15	M. Rayet	Some aspects of the synthesis of p-nuclei
11:15-11:30	S. Harissopulos	Cross-section measurements of relevance to the p-process
11:30-11:45	C. Grama	A new approach of a global alpha-optical model potential
11:45-12:15	P. Leleux	Experiments relevant to the Hot CNO-cycles
12:15-12:30	W. Bradfield-Smith	Break-out from the hot CNO cycle via the ^{18}Ne(α,p)^{21}Ne
12:30-12:45	J. Jose	Synthesis of ^{7}Be, ^{22}Na, ^{26}Al in classical novae
12:45-13:00	C. Iliadis	Reaction rates for explosive H-burning
13:00-14:30	LUNCH	
Session 3	*14:30-16:30*	*RP-PROCESS; SCREENING*
14:30-15:00	S. Kubono	Experimental approach to the onset of the rp-process
15:00-15:15	J. D' Auria	Studies of nuclear reactions involving radioactive beams
15:15-15:30	H. Schatz	Nuclear burning on accreting neutron stars
15:30-15:45	M. Hashimoto	Rapid p-capture in X-ray bursts
15:45-16:00	G. Shaviv	The screening of nuclear ractions
16:00-16:15	P. Descouvemont	Screening effects on transfer reactions from R-matrix
16:15-16:30	K. Czerski	Electron screening of D(d,p)^{3}He in metallic media
20:00-21:30		*2nd POSTER SESSION*
22:00-23:30		2nd SEMI-FINAL OF WORLD-CUP (Nothing to do with NiC98!)

THURSDAY 9

08:00-15:00	EXCURSION TO *METEORA*
	AFTERNOON FREE
20:00-23:00	NIGHT CRUISE IN THE GOLF OF PAGASITIKOS

FRIDAY 10

Session 1	*08:30-10:30*	*NUCLEAR DATA ARCHIVES FOR ASTROPHYSICS*
08:30-09:00	C. Angulo	Nuclear Astrophysics Compilation of Reaction Rates
09:00-09:30	T. Rauscher	Theoretical thermonuclear reaction rates in astrophysics
09:30-10:00	E. Firestone	Nuclear Astrophysics data dissemination on the Internet
10:00-10:30	F. Kaeppeler	Stellar n-capture rates and the s-process
10:30-11:15	COFFEE BREAK	
Session 2	*11:15-13:00*	*NUCLEOSYNTHESIS IN AGB STARS AND THE S-PROCESS*
11:15-11:45	J. Lattanzio	Nucleosynthesis in Asymptotic Giant Branch stars
11:45-12:15	P. Kienle	β-decay experiments and astrophysical implications
12:15-12:30	P. Koehler	n-capture on ^{88}Sr and implications for the s-process
12:30-12:45	N. Mowlavi	Dredge-up and nucleosynthesis in AGB stars
12:45-13:00	F. Corvi	n-capture cross-sections of ^{84}Kr and ^{86}Kr
13:00-14:30	LUNCH	
Session 3	*14:30-16:30*	*GALACTIC CHEMICAL EVOLUTION (I)*
14:30-15:00	R. Gallino	The s-process in AGB stars of various metallicities
15:00-15:30	S. Amari	Pre-solar grains and supernovae
15:30-16:00	S. Ryan	Abundances of the oldest objects in the Universe
16:00-16:15	H. Umeda	Abundances in metal poor stars and SNII
16:15-16:30	C. Travaglio	Galactic chemical evolution of n-capture elements
20:30-23:00		SYMPOSIUM DINNER

SATURDAY 11

Session 1	*08:30-10:30*	*CHEMICAL EVOLUTION (II); NEUTRINOS IN SUPERNOVAE*
08:30-09:00	J. Truran	Cosmic chemical evolution
09:00-09:15	J. Geiss	Abundances of D and ^{3}He and astrophysical implications
09:15-09:30	W. Gacquer	Heavy element nucleosynthesis in the early Galaxy
09:30-10:00	KH Langanke	Neutrino-nucleus interactions in astrophysics
10:00-10:15	D. Nadyozhin	Neutrino-induced production of the light elements
10:15-10:30	R. Boyd	OMNIS:Observatory for Multiflavor NeutrInos from SN
10:30-11:15	COFFEE BREAK	
Session 2	*11:15-13:00*	*SOLAR NEUTRINOS*
11:15-11:45	M. Cribier	Detection of solar and high-energy cosmic neutrinos
11:45-12:00	F. Hammache	The ^{7}Be(p,γ)^{8}B cross-section and the solar neutrinos
12:00-12:15	F. Strieder	Nuclear astrophysics at Bochum; implications for solar ν
12:15-12:30	K. Suemmerer	Coulomb dissociation of ^{8}B
12:30-12:45	A. Shotter	Coulomb break-up of ^{8}B
12:45-13:00	A. Mengoni	Reaction rates from Coulomb dissociation: core excitation effect
13:00-14:30	LUNCH	
Session 3	*14:30-15:30*	*CLOSING SESSION*
	M. Arnould	*Round Table* on: Open Issues and
	C. Rolfs	Perspectives for Nuclear Astrophysics;
	FK Thielemann	General Discussion

POSTER PAPERS

Available space: `50 cm large x 120 cm long.`

Only the first author is indicated on the list

1	Abia Carlos	LiBeB production with time-dependent GCR fluxes
2	Aliotta Marialuisa	Study of ^{6}Li+d$\longrightarrow 2\alpha$ at astrophysical energies
3	Arlandini Claudio	The s-process synthesis of ^{142}Nd
4	Balachandran Suchitra	Oxygen isotopic ratios and stellar evolution models
5	Bateman N.	Study of the ^{12}C(α,γ) rate with the p-decay of ^{17}N
6	Brune Carl	Sub-Coulomb a-transfer on ^{12}C and the ^{12}C(α,γ) rate
7	Butt Yousaf	Observation of the astrophysically interesting state $3/2^+$ of ^{19}F
8	Davis Andrew	Pre-solar grains from meteorites
9	Deliyannis Costas	Primordial lithium from halo star observations
10	Descouvemont Pierre	^{16}O(p,γ)^{17}F at low energies
11	Dominguez Inma	Influence of the progenitor on the explosion of SNIa
12	Freiburghaus C.	A reduced Quasi-equilibrium network for Si-burning
13	Fullop Zsolt	Half-life of ^{44}Ti
14	Gai Moshe	β-decay of ^{16}N and oxygen formation in He-burning
15	Gervino Gianpero	Constraints for solar neutrino fluxes
16	Grama Cornelia	A new phase of nuclear matter: new class resonant states
17	Graulich J.-S.	ARES, a recoil separator for radiative capture reactions
18	Greife Uwe	Direct experimental approaches to nucl. reaction rates
19	Gyurky Gyorgi	Absolute resonance strength of ^{36}Ar(p,γ) reaction
20	Hale Jr. Stephen	The Ne-Na cycle and the composition of globular clusters
21	Hansper Vera	Study of the ^{40}Ca(^{3}He,t)^{40}Sc reaction at 26 MeV
22	Hashimoto Masa-aki	New evolutionary tracks from white dwarfs to neutron stars
23	Haubold Hans	Wavelet analysis of the Solar neutrino data
24	Hoeft Matthias	Chemical evolution of Deuterium in cosmological simulations
25	Ishimaru Yuhri	Inhomogeneous early enrichement of our Galaxy
26	Junker Matthias	Future prospects of Underground nuclear physics
27	Kajino Taka	Lithium isotopic ratios in the interstellar medium
28	Karakas Amanda	Eccentric Ba stars and wind accretion
29	Kii Toshiteru	Photodesintegration of light nuclei
30	Kolbe Edwin	Neutrino-induced reactions and nucleosynthesis
31	Laird Alison	Indirect measurement of ^{15}O(p,γ)
32	Lavagno Andrea	Galaxy clusters, power laws and non-extensive statistics
33	Limongi Marco	Yields of massive stars of zero metallicity
34	Lugaro Maria	References for updated nuclear reaction rates
35	Messenger Ben	Nucleosynthesis and deep mixing in red giants
36	Mochizuki Yuko	The half-life of fully ionised ^{44}Ti
37	Mohr Peter	n-capture of ^{46}Ca, ^{48}Ca, ^{50}Ca at stellar energies
38	Murphy Alex	A Gd liquid scintillator for ONMIS
39	Murphy Alex	The p-capture rates on ^{96}Zr, ^{112}Sn and ^{119}Sn
40	Mutti Paolo	n-capture on ^{207}Pb and ^{209}Pb: implications for the s-process
41	Nomoto Ken'ichi	Progenitors of SNIa: metallicity dependence
42	Oberhummer Hans	Investigation of the 3α process
43	Orito Manabu	Impact of primordial LiBeB on cosmology and nuclear physics
44	Panov Igor	The r-process in core-collapse low-mass supernovae
45	Pantis George	Neutrinoless double beta decay
46	Powell Denise	The ^{24}Mg(p,γ) rate and abundances in globular clusters
47	Sarriguren Pedro	β^+ decay in neutron rich deformed nuclei
48	Scalia Augusto	Analysis of fusion for systems with 62<A1+A2<184
49	Sedyshev Pavel	On n-spectrsoscopy with a Ge detector
50	Shima Tatsushi	n-captures on deuteron and ^{7}Li at stellar energies
51	Silvestro Giovanni	Imaging and photometry of AGB star envelopes in the InfraRed
52	Smith Michael	Nuclear astrophysics data at ORNL
53	Somorjai Endre	Experimental contribution to the study of the p-process
54	Spyrou Costas	Measurements of the ^{19}F(p,$\alpha\gamma$)^{16}O cross-section
55	Straniero Oscar	Nucleosynthesis and deep mixing in Red Giant stars
56	Tatischeff Vincent	Tracing low-energy cosmic rays by X-ray line emission
57	Travaglio Claudia	Presolar dust grains from SNII
58	Vaglio Paolo	s-process in intermediate AGB stars
59	Van Wormer Laura	Nuclear data for explosive H-burning on A=30-50 nuclei
60	Wagemans Cyriel	Investigation of ^{37}Ar(n,p) and ^{37}Ar(n,α) reactions
61	Wagemans Jan	Measurement of the ^{17}O(n,α)^{14}C cross-section
62	Wanajo Shinya	The r-process in the explosion of 8-10 Msol stars
63	Weller H.	Measurement of ^{7}Li(p,γ) and implications for ^{7}Be(p,γ)
64	Wisshak Klaus	n-captures on Dy and Yb isotopes and the s-process